



**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of UNESCO)**

Thirty-first Session of the Assembly
UNESCO, 14–25 June 2021

Items 4.2 and 4.4 of the Provisional Agenda

**DRAFT PROGRAMME AND BUDGET FOR 2022–2025 (41 C/5)
FIRST BIENNIUM 2022–2023**

Summary

This document presents the Secretariat's draft of the 2022–2025 Programme and Budget (first biennium 2022–2023), the first quadrennium of the new IOC Medium-Term Strategy for 2022–2029 (document IOC/A-31/4.1.Doc(1)), prepared based on the guidance received from the IOC Executive Council through IOC Resolution [EC-53/2](#).

Decision proposed: After a brief introduction and discussion in plenary under item 4.2, the Assembly is invited to take note of this report and consider the draft decision referenced as IOC/A-31/4.2 in the Provisional Action Paper (document IOC/A-31/AP). The document will then be subject to an in-depth review by the sessional statutory open-ended Financial Committee and the decision reflected in the Draft Resolution that the Financial Committee will be submitting to the Assembly for adoption under item 4.4 in accordance with paragraph 15 of the Draft Revised Guidelines for the Preparation and Consideration of Draft Resolutions ([IOC/INF-1315](#)).

INTRODUCTION BY THE IOC EXECUTIVE SECRETARY

1. The key role of the ocean in many aspects of sustainable development translates into the importance of maintaining and further developing IOC's means of delivery. We live now in a period when the value of the ocean for our civilization is becoming better understood. There is an emerging possibility that science-based ocean planning will lead to the reverse in the decline of the ocean's health and will increase benefits for humankind originating from the ocean. However, historically, the value of ocean science and the need for coordinated action have not been reflected adequately in national and international governance, nor are they reflected in the past or current resources available to the IOC.

2. The UN Decade of Ocean Science for Sustainable Development 2021–2030 (the Ocean Decade) intends to change this situation, engage multiple stakeholders into capacitating ocean science and directing it towards delivering on grand challenges of our time. In addition, there are high expectations of IOC's input into two key UN processes, namely the adaptation to and mitigation of climate change under the UNFCCC and the new International Legally Binding Instrument (ILBI) under the UN Convention on the Law of the Sea (UNCLOS) on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ). These four broad areas of delivery (the IOC core Functions, Decade, UNFCCC, and BBNJ) will be the main factors shaping the new IOC Medium Term Strategy (MTS) for 2022–2029 and IOC's programme of work for 2022–2025. The IOC has been working on its new MTS since 2018, however, at the time of writing this introduction, the COVID-19 pandemic has become the main concern of the world. Like the dramatic pandemics of other centuries, it will affect the economies of countries and the thinking of societies and decision-makers. The role of the ocean in human health, the opportunity for the humankind to start acting in a much more sustainable way after the slowdown of economy caused by the pandemic, and the impacts of the lockdown on the marine environment and human operations in the ocean and at the coast will all need to be given a serious consideration.

3. Before the pandemic, the UNESCO 40th General Conference agreed to the budget scenario for 2020–2021 (40 C/5) based on the appropriated regular budget (Member States' assessed contributions) of US\$ 534.6 million (\$11.1 million for the IOC, or, without contribution to common charges, \$10.9 million). This budget offered to the IOC Secretariat a possibility to continue the work similarly to the previous biennium and to allocate some very modest seed money to the Ocean Decade. The IOC's integrated budget for 2020–2021, of the order of \$26.9 million, was a sum of assessed and anticipated voluntary (extrabudgetary) contributions: \$10.9 million under regular budget (of which \$8.3 million is for staff costs and \$2.6 million is for operations), \$2.6 million of voluntary contributions already in hand at the moment of the 40 C/5 preparation and a resource mobilization target of \$13.2 million. This formed the baseline conditions for the planning of the programme and budget for the first biennium 2022–2023.

4. IOC celebrated its 60th anniversary in 2020. Its services are increasingly required for the world. However, currently, the IOC can be characterized as an intergovernmental commission with very strong programmes but in an unstable financial situation. The crucial need of humankind in ocean science clearly manifested itself in the proclamation of the Decade in 2017 by 193 UN Member States and observers to the UN General Assembly. Realizing these needs, IOC Member States at the 30th Session of IOC Assembly adopted [Resolution XXX-3](#), in which they requested the Executive Secretary to produce an "*estimate of the necessary budget to effectively operate the IOC at an optimum level, to help identify how and what additional resources might be secured*". This work has started.

5. During the intersessional period, it was difficult to evaluate what IOC would truly need because it was not guaranteed that IOC would be given the responsibility to coordinate the implementation of the Decade. In parallel, significant developments were taking place in the domain of ocean management, particularly due to the deliberations by the High-Level Panel for a Sustainable Ocean Economy. The UN Ocean Conference of 2020 was postponed, and so was the UNFCCC CoP 26, which was intended to become the first "Blue CoP". The UN Intergovernmental

Conference on Marine Biodiversity of Areas Beyond National Jurisdiction ([BBNJ](#)) was also significantly delayed while it was considering to request IOC's expanded service with regard to the scientific capacity and transfer of marine technology. With that, it is still difficult to anticipate the full potential future scope of needed activities. This uncertainty may also impact the discussions on the IOC Medium-Term Strategy for 2022–2029. The Secretariat's initial considerations focused on two options:

- the "healthy IOC" scenario ensuring the ability of the Secretariat to support the current portfolio of activities (now including coordination of the Ocean Decade, pursuit of IOC work on ocean planning, including maritime spatial planning, more resourceful work in the regions and activities in the areas of ocean literacy and communication);
- And a hypothetical sketch of "optimal IOC" that would be able to support the emerging alliance of ocean science and management. This configuration is still not clear due to emerging negotiations at the United Nations and evolving developments in ocean governance. Consultations with Member States will be needed to complete this crucial strategic planning exercise.

6. More immediate budget and staffing requirements will be determined by the strategic directions of the IOC Medium-Term Strategy for 2022–2029 and the expectations from the IOC during that term. In 2022–2025, the IOC will continue to seek an alignment between the objectives of the Ocean Decade and IOC's programmes and activities, with a special focus on those that deal with critical gaps in scientific knowledge, such as understanding of multiple ocean stressors of relevance to ecosystem-based management, prediction of the ocean state, adaptation to climate change, development of solutions for ocean health and the protection of the marine environment, warning of ocean hazards threatening lives, ocean management approaches, as well as Member States' capacity development. The emerging vision for the IOC future resources and staffing has to reflect the new economic, political and societal realities of the post COVID-19 pandemic world and also the future expected budget of UNESCO.

7. Member States will recall that while the programme of UNESCO is defined for the quadrennial period 2022–2025, the General Conference of UNESCO decided to maintain the biennial cycle for the appropriation of the budget. In the 2022–2023 biennium, provided the overall UNESCO envelop remains the same (\$534.6 million), the IOC's net allocation from the assessed contributions of UNESCO Member States, as suggested to the 211th session of UNESCO Executive Board, would be \$11.2 million. There is an expectation and ambition for the IOC to raise \$16.2 million in voluntary contributions, in addition to \$4.4 million already in hand. Despite the fact that the overall regular budget for the biennium is nominally a little higher than the figures for 2020–2021 (\$11.2 million vs \$10.9 million), the budget available for operations in the new biennium is expected to be considerably lower due to an increase in standard staff costs. With the new comprehensive and transparent approach to presenting staff costs in the UNESCO budget, the full anticipated cost of staff are now reflected under the Sectors/Bureaux where they are working and delivering results. This is expected to support more flexibility in the ability of Sectors/Bureaux to manage their staff costs as needed throughout the biennium.

8. The opportunity and the responsibility presented to IOC by the Ocean Decade requires a strategic assessment and a decision on where to invest. The volume of work for the IOC Secretariat is increasing. The resources for activities originating from assessed contributions of UNESCO Member States are decreasing. The only rationale for adequate delivery is to reinforce the Commission's capacity to mobilise additional resources. In this context, the Executive Secretary's choice is to invest in the human resources of the IOC, its greatest asset, in anticipation that a stronger team will be able to adequately respond to a higher demand on IOC's critical work in enabling science-based ocean management. A corporate investment in IOC staffing, elevating its profile to the level commensurate with our vision for a truly transformative Ocean Decade, is required in order to raise more resources for an effective and efficient Decade Coordination Unit and for all

IOC programme activities. It is this vision that enables the increased projections for voluntary contributions.

9. The IOC programme and budget for 2022–2023, the starting biennium of the strategic term 2022–2029, requires a deep reflection of its Member States. Once again, Member States are referred to the IOC Statutes' Article 11.3 outlining the possibility for the IOC to act as a joint specialized mechanism in the UN system and to Article 10.4 allowing the Commission to establish additional financial arrangements for the implementation of its programme of work. Modern leadership can only be achieved through partnership. Seeking adequate strategic partnerships seems to be the way for the IOC to keep and strengthen its role as a coordinator and facilitator of ocean science at the service of sustainable development.

2022-2025 DRAFT PROGRAMME AND BUDGET – FIRST BIENNIUM 2022-2023

[abstract from document [41 C/5 Draft](#), Vol.2: Draft Programme and budget, First biennium: 2022-2023.]

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION

03001 The years 2022-2025 may see an accelerated transition towards sustainable integrated ocean management potentially resulting in at least a partial reversal of the decline in ocean health. Guided by the High-Level Objectives of its Strategy for 2014-2021, the Intergovernmental Oceanographic Commission (IOC) was instrumental in seeding this emerging fundamental change, and the vision behind it. IOC coordinated a Global Ocean Observing System (GOOS), facilitated international data exchange and cutting-edge research, spearheaded ocean services and contributed to assessments, worked at the science – policy - society interface, supported capacity development in its 150 Member States, and undertook an unprecedented - in its inclusivity, ambition, scale, and intensity – effort in preparing the UN Decade of Ocean Science for Sustainable Development 2021-2030 (the Ocean Decade). The Ocean Decade will offer an exceptional opportunity for nations to work together to generate the global ocean science needed to support the sustainable development of our shared ocean, and will also highlight the societal benefits of IOC and its programmes. Starting from 2021, a major responsibility of IOC is to support and facilitate the Ocean Decade implementation and to regularly report progress to the Member States and the United Nations, providing a powerful stimulus for implementing collectively-agreed global priorities.

03002 The Covid-19 pandemic affected the IOC and ocean activities, but IOC adjusted its work to mitigate the damage. The confinement created negative impact on ocean observations. The observing community was resilient and found solutions to keep the system running as much as possible, including through stepping up international collaboration. The need to keep physical distances altered the modalities of reacting to tsunami warnings. IOC issued updated guidelines for evacuation under confinement constraints. Post-crisis pressures may lead to a further reduction of the still very small overall budget that nations invest in ocean research. Through its Global Ocean Science Report, IOC will continue to monitor trends that could negatively affect our collective ability to mitigate and adapt to future ocean change and to “build back better”. As human populations continue to increase, society is turning to the ocean to provide increased amounts of food, resources and services to support economic development and social welfare, including human health. Developing and managing the sustainable ocean economy will require science, data and information, services, and decision support tools to guide the present and future investments whilst ensuring the resilience and long-term health of the ocean ecosystem.

03003 In 2022-2025, the IOC will contribute to the achievement of the Strategic Objective 2 of the draft Medium-Term Strategy Work towards sustainable societies and protecting the environment through the promotion of science, technology and the natural heritage and to its Outcome 3 Enhance knowledge for climate action, biodiversity, water and ocean management, and disaster risk reduction. IOC will continue to strengthen cooperation with several UNESCO programmes and maximize the comparative advantage of UNESCO’s multidisciplinary approach to key societal issues. Through its cooperation with the Education Sector to more effectively mainstream ocean literacy in school curricula, IOC will also contribute to the achievement of Outcome 1 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, as well as to the Intersectoral Programme on Environmental education. IOC will continue its collaboration with the Intergovernmental Hydrological Programme on transboundary water management and freshwater/marine interactions. IOC will also continue to contribute to UNESCO intersectoral activities in the area of climate change and loss of biodiversity, focusing on their ocean dimension. IOC’s action as catalyzer for regional and international cooperation in ocean science will indirectly contribute also to the achievement of Outcome 4 Advance international cooperatioCultural Heritage and the World Heritage Centre (marine sites), which will be reinforced in the context of the Ocean Decade, as well as its work on coastal megacities - the fastest growing segment of all megacities - ,

will contribute to the achievement of Outcome 5. Moreover, IOC will participate in the Intersectoral Programme on Environmental education contributing the ocean dimension of knowledge systems used for addressing climate change and fostering sustainable management of ocean ecosystems.

03004 The IOC Secretariat is the only intergovernmental mechanism in the UN system fully consecrated to the development of ocean science. All recent audits and assessments of the IOC have indicated that while IOC represents a most productive and highly-returning investment of Member States into the future knowledge-based sustainable ocean services, this investment is drastically insufficient, and that IOC is under-staffed and under-resourced to achieve its expanding mandate.

03005 Despite limited regular programme budget, the scope of IOC work is continuously increasing. Strategic developments are required for IOC to spearhead ocean research coordination on important topics such as ocean acidification, de-oxygenation, the impacts of multiple stressors on marine biodiversity, whilst continuing its efforts towards sustaining and augmenting global observations and collection of data of societal relevance and necessity, as part of GOOS. The UN Intergovernmental Conference on an international legally binding instrument under the United Nations Convention on the Law of Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction is considering the IOC Secretariat as a mechanism to coordinate the related capacity development work. IOC is also increasingly seen as a key provider of the ocean knowledge to UNFCCC and a contributor to the achievement of the marine biodiversity targets under the Convention on Biological Diversity.

03006 The 2030 Agenda is ocean science-intensive. The IOC-coordinated Ocean Decade will harness, stimulate and coordinate research and knowledge-generation efforts at all levels, in order to support delivery of the information, action and solutions needed to achieve its goals. Direct and indirect benefits for humanity from the healthy ocean and the work of IOC will accrue in the many facets of Sustainable Development (see the analysis of IOC's contribution to the SDGs and related targets). For example, quantitative knowledge about the ocean may make it possible to reduce the carbon gap, achieving the ambitious goals of the UNFCCC Paris Agreement (SDG 13), to sustainably produce more food from the ocean (SDG 2), to generate more renewable energy (SDG 7), and to stimulate new economic developments (SDG 1 and 9). The Ocean Decade was designed to maximize this vital potential for humanity. IOC work is essential to achieve the SDG 14 and its targets. IOC will continue to fulfill the UN custodian role for reporting on two SDG targets, namely 14.3 and 14.a, and to support UNEP on the scientific aspects of reporting on targets 14.1 and 14.2. It will also continue to lead the global coordination of research on ocean acidification and deoxygenation, and will reinforce its pioneering work on interactions between multiple ocean stressors - setting the stage for science-based ecosystem management. IOC is the flagship of the new coordinated research on the future of the ocean carbon sink and an active participant in the 'Blue Carbon' initiative. It will continue to provide technical assistance to UN inter-agency expert work on ocean solutions to climate change mitigation through carbon sequestration and to coordinate the Global Ocean Observing System and the International Oceanographic Data and Information Exchange programme, supported by a global system of national data centres and units and a variety of databases, such as the Ocean Biodiversity Information System (OBIS) and the World Ocean Database (WOD).

03007 IOC will further advance the development of the global Ocean Data and Information System that will greatly facilitate the sharing of ocean data and information with a large spectrum of stakeholders, in line with the objectives of the Ocean Decade. IOC will also continue to provide a key direct contribution to the implementation of the UN Sendai Framework for Disaster Risk Reduction by coordinating the intergovernmental network of four regional tsunami warning and mitigation systems; acting as global standard setter for global tsunami warning and mitigation, and; coordinating thirteen Tsunami Service Providers (TSPs) running round-the-clock operational services. Going forward, IOC will develop a 10-Year Research and Development Plan for a UN Decade Tsunami Programme. IOC is also operationalizing a range of new ocean services, e.g. warnings about harmful algal blooms. Building on its programme on Marine Spatial Planning,

Integrated Coastal Area Management and the Large Marine Ecosystems Global Partnerships, IOC will continue promoting novel means of managing the ocean leading to the enhancement of community resilience, the deployment of nature-based solutions for climate adaptation, the integration of ocean ecosystem services into national evaluation frameworks, and the conservation of critical ecosystems and resources through marine protected areas. With the multitude of its activities contributing to the Ocean Decade, IOC will be in a position to inform its Member States and broad community of stakeholders about the state of the ocean and monitor progress in the achievement of the Decade's objectives through a new flagship publication 'The State of the Ocean Report (StOR)'.

03008 IOC will devote particular attention to the strengthening of its regional, national, and local impact. At regional level, IOC will continue the build-up of its regional subsidiary bodies, turning them into effective agents of promoting ocean science and sources of solutions for sustainability. Working with and through partners will make it possible to extend the coverage of IOC regional work to all ocean basins. Active engagement with regional organizations and subsidiary bodies of partner organizations, making ocean data and information more open and accessible, will help to support the ocean-related needs of nations and local communities.

03009 Capacity development will remain a key activity of the IOC. In order to create conditions for more harmonious human relations with the ocean, IOC will continue to spearhead ocean literacy, expand its innovative communication activities targeting broad categories of stakeholders, enhance its dialogue with indigenous knowledge holders and strengthen youth engagement and participation.

03010 Active mobilization of extrabudgetary resources (both financial and staffing) will be pursued and expanded. The achieved visibility and leadership of IOC in the ocean science-related aspects of the sustainable development agenda, multiplied by the professionalism and energy of its staff, offer increased potential for fundraising. While every effort will continue to be made to broaden outreach and partnerships, support of Member States will remain critical to secure the levels of resources needed to provide necessary ocean-science based solutions to sustainable development. By codesign of various types of its activities, with a focus on their economic impact, leading to clearer valuation of its work, IOC will strive to create conditions for its further strengthening and increased delivery for the benefit of global sustainability [...].

Global Priority Africa

03011 Africa has a very high interest in the sustainable ocean economy. To enable the significant economic return downstream, IOC's underlying work to benefit Global Priority Africa will start upstream, with developing an effective African ocean observing system, expanding training activities, facilitating modern means of data management, and the use of knowledge and best practices in expanding coastal zone management, maritime spatial planning and management of marine ecosystems, towards generating more wealth, and assisting in coping with various manifestations of climate change. To achieve these ambitious goals, substantial resource mobilization will be needed and a coordinated approach will be required between national, bilateral and multilateral efforts. The Ocean Decade coordinated by IOC will continue the momentum of the Decade of African Seas and Oceans 2015-2025, and will build synergies with the African Union initiatives.

Global Priority Gender Equality

03012 The IOC contribution to Global Priority Gender Equality will focus on ensuring that international science cooperation for peace and sustainability promotes equal representation and voice for women and men and that conditions for both women and men to be agents of mitigation, adaptation, resilience and sustainability are equally enabled. IOC will continue monitoring the gender equality situation in ocean sciences. The Global Ocean Science Report portal will be receiving and making available to users key gender-disaggregated data, guiding investments and capacity development efforts. The Commission will also support the establishment of networks of early career

professionals and will aim to support their professional development, and their equitable and gender-balanced engagement in ocean affairs.

Priority Groups

03013 Guided by the SIDS Accelerated Modalities of Action (SAMOA) Pathway and the UNESCO SIDS Action Plan, in increased dialogue with SIDS, taking into account the recent IOC survey on capacity development requirements, which depicted specific interests of island nations, IOC will act as a strong supporter of SIDS. It will continue its tsunami warning services focusing particularly on countries' preparedness through the IOC Tsunami Ready pilot programme. The IOC co-sponsored World Climate Research Programme will help SIDS to address the consequences of sea-level rise and its regional variations. Training in ocean affairs will be expanded and will start for the first time in the Pacific, focusing on development of marine scientific and technological capacity of SIDS and on enhancing cooperation to manage all aspects of the health of the ocean including impacts of ocean acidification and invasive species. Caribbean SIDS will be assisted through the development of Sargassum watch and its services. Special attention will be required to identify a variety of focal/contact points in SIDS to ensure and facilitate their active participation in IOC programme and capacity development activities.

03014 The Commission will continue to reinforce its convening power by engaging with an increased range of national, regional and international stakeholders, cutting across the scientific communities, governments, industries and civil society organizations working in ocean research, operational services, the science-policy-society interface, technology and innovation, education, and science funding with a view to further advance the generation of knowledge, data and information to inform the design of effective actions. The Decade will provide an additional pillar to achieve these goals through new innovative partnerships. Partnerships towards capacity development, ocean planning tools, transdisciplinary and multi-stakeholder initiatives in ocean science, observation, data and information will contribute to an enabling environment for engaging practitioners, decision-makers, and the private sector in the development and use of science-based solutions. The continued engagement of Member States through existing IOC and Ocean Decade coordinating frameworks will be pursued, broadening the traditional technical and scientific remit, and highlighting the socio-economic value of IOC' work to national ocean stakeholders. New forms of cooperation and, potentially, stronger formal links of IOC with other UN organizations will be explored based on the understanding that ocean science represents a cross-cutting, underpinning necessity for fulfilling mandates of other sister agencies.

I. Intergovernmental Oceanographic Commission: Focus in 2022-2025

OUTCOME 3

Enhance knowledge for climate action, biodiversity, water and ocean management, and disaster risk reduction

OUTPUT 3.IOC1 Member States critically supported in strengthening their capacity to conduct marine scientific research, generate knowledge, and develop and implement science-based tools, services, and policies in order to reverse the decline in ocean health and accelerate the transition towards sustainable management of ocean-related risks and opportunities¹

03015 The IOC draft Medium-Term Strategy 2022-2029 has the vision 'to bring together governments and the science community in achieving the Ocean We Need for the Future We Want'. Through international cooperation, IOC aspires to build and apply scientific knowledge for achieving the following High-Level Objectives (HLOs), with particular attention to ensuring that all Member States have the capacity to meet them:

¹ Based on the approved framework of functions as per the IOC's Draft Medium-Term Strategy 2022-2029.

1. Healthy ocean and sustained ocean ecosystem services;
2. Effective warning systems and preparedness for tsunamis and other ocean-related hazards;
3. Resilience to climate change and contribution to its mitigation;
4. Scientifically-founded services for the sustainable ocean economy; and
5. Foresight on emerging ocean science issues.

Objective 1 – Healthy ocean and sustained ocean ecosystem services

03016 Improving scientific understanding of ocean ecosystems, identifying robust indicators of their health, and understanding ecosystem vulnerability, e.g. for multi-stressors, are vital for monitoring and predicting the ecosystem health and resilience and developing ecosystem-based management, underpinning sustainable ocean economy and improved ocean governance. Current ecosystem research and management require stronger coordination and cooperation between key stakeholders.

Objective 2 – Effective warning systems and preparedness for tsunamis and other oceanrelated hazards

03017 With accelerating coastal development and changing environment, society becomes increasingly vulnerable to coastal hazards such as tsunamis, tropical cyclones, coastal flooding, and harmful algal blooms, to name only a few. Nations should be aware of and prepared for the hazards and have access to the necessary information for coastal adaptation planning, risk mitigation and, as well, for safe operations at sea. This calls for continued implementation of ocean and coastal observing and prediction systems and the development of a suite of local decision-support tools, including early warning systems.

Objective 3 – Resilience to climate change and contribution to its mitigation

03018 Climate change and variability imply temperature changes, altered intensities and patterns of tropical cyclones, storms, precipitation and droughts, sea-level rise, etc. Carbon emissions lead also to ocean acidification. Combined effects manifest themselves in ocean de-oxygenation, coastal erosion, etc. Many human development goals, such as food security and health, access to water resources, and preparedness for disasters, are threatened by climate change. Ocean is a key regulator of climate. A coordinated global effort is needed therefore to comprehensively include the ocean dimension in our improved capacity to understand and predict climate change, its impacts on the ocean, guiding the development and accelerated implementation of effective adaptation and mitigation strategies.

Objective 4 – Scientifically-founded services for the sustainable ocean economy

03019 An ocean economy is sustainable when activities are conducted in harmony with the long-term capacity of ocean ecosystems to support them. Reaching such equilibrium requires ocean observations, fit-for-purpose data products and services, scientific assessments, monitoring and forecasting of ocean ecosystem health. Knowledge-based ocean management tools such as marine spatial planning, coastal zone management, marine protected areas, and management of Large Marine Ecosystems (LMEs) are needed so that ocean stakeholders could set environmental and socio-economic objectives, develop operational plans, define safe boundaries and guidelines for operations, as well as reduce conflicts among multiple uses of ocean space.

Objective 5 – Foresight on emerging ocean science issues

03020 Ocean remains one of the least studied environmental domains of the Earth System. Oceanographic discoveries are still possible. New issues constantly emerge in the ocean that may potentially affect the health of ocean ecosystems as well as human wellbeing. New stressors, e.g.

new contaminants or pressures from new industries, may combine with known stressors such as ocean acidification, altered patterns of the ocean carbon cycle, de-oxygenation, and climate change, and create complex impacts on ecosystems. Cutting-edge research, innovation, technological development, including in observations and in developing a global “data and information ecosystem”, should augment our capacity to anticipate such emerging issues, inform policy-making, including in the context of relevant regional and global conventions, and advance timely solutions involving relevant stakeholders.

II. Intergovernmental Oceanographic Commission: Results Matrix

OUTCOME 3

Enhance knowledge for climate action, biodiversity, water and ocean management, and disaster risk reduction

OUTPUT 3.IOC1 Member States critically supported in strengthening their capacity to conduct marine scientific research, generate knowledge, and develop and implement science-based tools, services, and policies in order to reverse the decline in ocean health and accelerate the transition towards sustainable management of ocean-related risks and opportunities Performance

<i>Performance Indicator</i>	<i>Baseline</i>	<i>Target 2023</i>
1. Number of Member States with experts actively engaged in the design and implementation of ocean research, generating knowledge to address key sustainability issues	(i) Experts from 51 Member States, of which 13 in Africa and 5 SIDS (37% women) (ii) 14.3.1 (Ocean Acidification): 25 Member States, of which 5 in Africa and 1 SIDS	(i) Experts from 60 Member States, of which 15 in Africa and 10 SIDS (45% women) (ii) 40 Member States, of which 8 in Africa and 3 SIDS
2. Number of Member States engaged in advancing ocean observation and data management through the Global Ocean Observing System (GOOS) and IOC Ocean Data and Information System (ODIS) delivering key information for science-informed solutions	(i) ODIS: no baseline (new activity) (ii) GOOS: 66 Member States, of which 11 in Africa and 8 SIDS	(i) 25 Member States of which 5 SIDS, (incl. 2 SIDS in Africa), (40% women among experts) (ii) 70 Member States, of which 13 from Africa and 10 SIDS, (40% women amongst experts engaged)
3. Number of Member States with strengthened capacities to develop and implement early warning systems and increase preparedness for and resilience to the risks of tsunamis and other ocean-related hazards	139 Member States, of which 9 from Africa and 28 SIDS	142 Member States, of which 12 from Africa and 29 SIDS
4. No. of supported Member States that contribute data and information to assessment, global repositories, science /policy interface underpinning sustainable ocean	50 Member States, of which 8 from Africa, 5 from SIDS contributing inputs through GEBCO, SDG, WOA	70 Member States, of which 10 from Africa, 8 from SIDS

Performance Indicator	Baseline	Target 2023
management and decision-making		
5. Number of Member States supported in the implementation of science-based ocean management plans and transformative solutions for sustainable development	<i>(i) 53 Member States, 11 Africa, 7 SIDS collaborating through Decade mechanism (ii) 80 Member States, 13 Africa, 10 SIDS participating in MSP roadmap implementation</i>	<i>(i) 80 Member States, 15 Africa, 10 SIDS (ii) 100 Member States, 16 Africa, 14 SIDS</i>
6. Number of Member States supported in strengthening their capacity in marine scientific research and biodiversity, observations and services, through the IOC Capacity Development	<i>(i) 14.a.1 (GOSR): 53 Member States, 13 Africa, 4 SIDS (ii) 38 Member States in Africa, 30 in LAC, 22 in Western Pacific region, 16 in Indian Ocean/Gulf region; 10 SIDS (5 in Africa), GE: no baseline available</i>	<i>(i) 58 Member States, 15 Africa, 5 SIDS (ii) 38 in Africa, 30 in LAC, 22 in Western Pacific region, 16 in Indian Ocean/Gulf region; 15 SIDS (5 in Africa). GE target: 40% gender balance</i>
7. ² Number of Member States provided with access to multi-languages ocean literacy resources and training programmes	<i>no existing baseline</i>	<i>80 Member States, of which 8 in Africa and 10 SIDS</i>

² This indicator is also relevant to the Intersectoral Output 3.IP1: Environmental education strengthened to equip learners to address global environmental challenges.

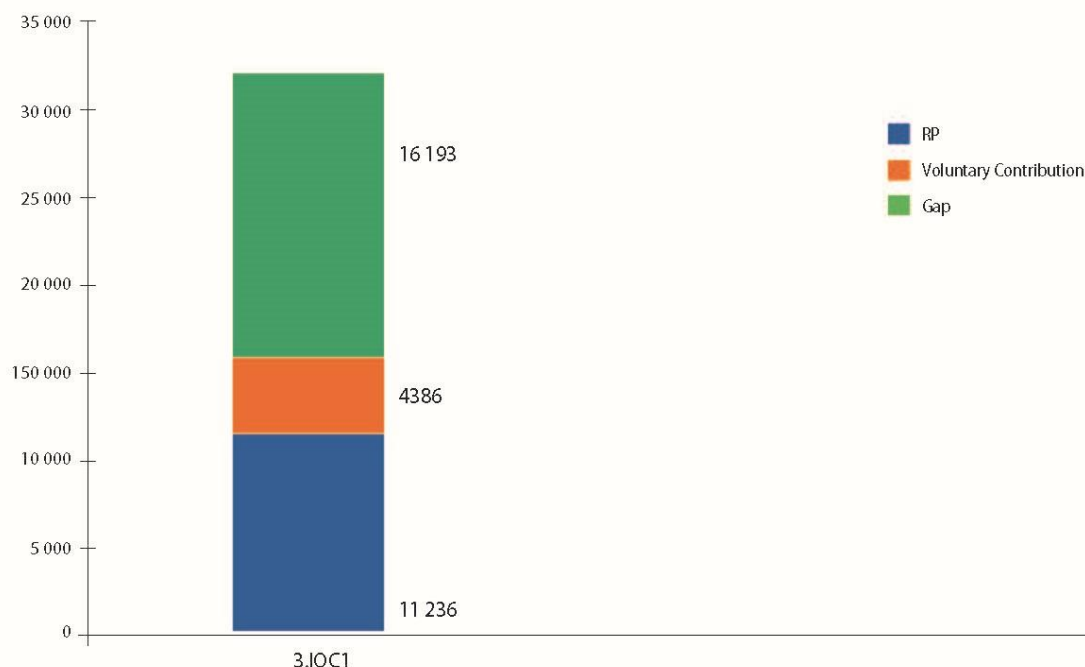
III. Intergovernmental Oceanographic Commission: Resources

IOC Integrated budget by output and source of funds based on the Appropriated Regular Programme Budget of \$534.6 million (in USD '000)

Output	Breakdown by source of funds						Total ³
	Regular Programme (RP) ¹	Revenue generating funds	Voluntary Contributions (VC)			Total Voluntary Contributions	
			Management Costs Account (MCA) ² - VC portion	Voluntary Contributions (VC) in hand	Gap		
3.IOC1 Member States critically supported in strengthening their capacity to conduct marine scientific research, generate knowledge, and develop and implement science-based tools, services, and policies in order to reverse the decline in ocean health and accelerate the transition towards sustainable management of ocean-related risks and opportunities	11 236	-	-	4 386	16 193	20 579	31 815
Total, IOC	11 236	-	-	4 386	16 193	20 579	31 815

- 1 The Appropriated Regular Programme Budget is funded by assessed contributions on Member States. For the Regular Programme figures the budget exchange rate is US\$1=0.869 euro.
- 2 The Management Cost Account (MCA) is financed 56% from the Regular Programme budget and 44% from programme support costs charged to projects financed by voluntary contributions.
- 3 Budget figures include the contribution of the Intergovernmental Oceanographic Commission to the intersectoral programmes and related outputs, as indicated in the implementation strategy.

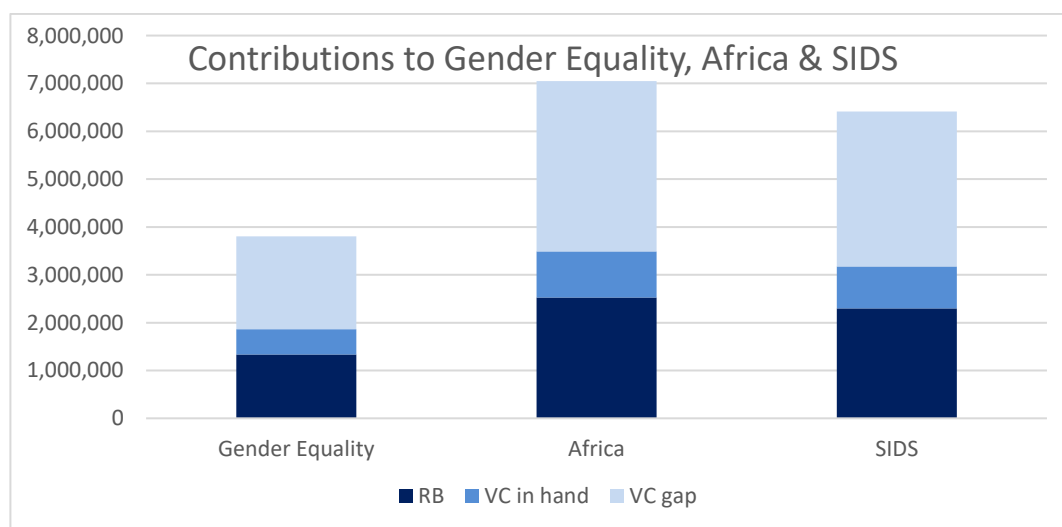
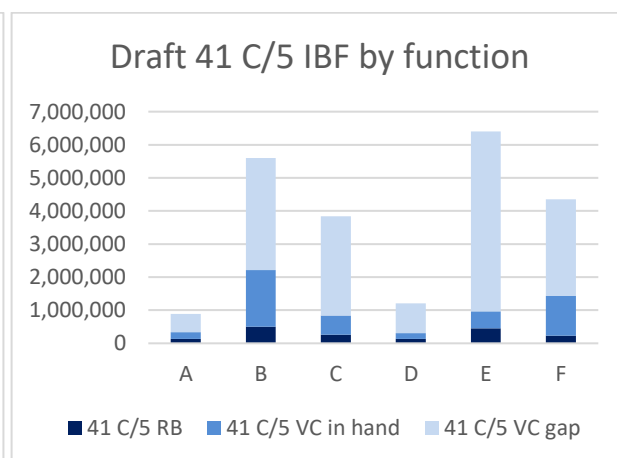
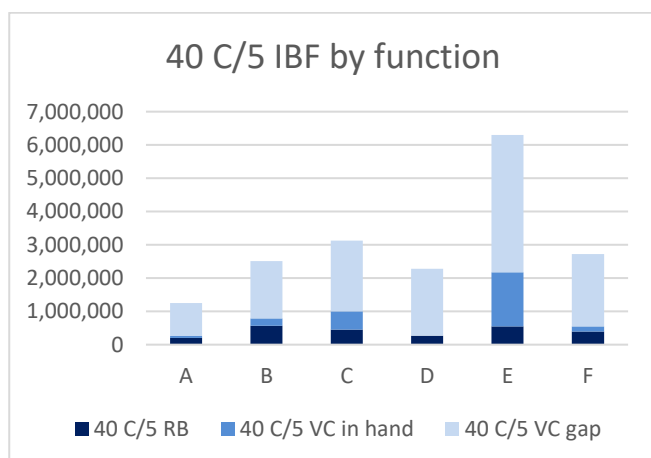
Total integrated budget by output and source of funds (in USD '000)



10. The Tables and charts below complete the presentation of the IOC programme and budget in the draft 41 C/5. They provide the complete Draft 41 C/5 (2022–2023) Integrated Budgetary Framework, including proposed allocations by functions and activities, as well as comparisons with the 40 C/5 (2020–2021).

Draft 41 C/5 - 2022-2023 Draft programme structure and integrated budgetary framework (IBF)							
Activity title	Scope	40 C/5	Draft 41 C/5				Total
		Regular Budget	Regular Budget	Voluntary contributions (VC)			
		\$	\$	in-hand	gap	total VC	
		\$	\$	\$	\$	\$	\$
FUNCTION A - Ocean Research		205,000	135,745	203,400	550,000	753,400	889,145
WCRP	GLO	50,000	33,000		50,000	50,000	83,000
Ocean Carbon Sources & Sinks	GLO	75,000	49,745	142,500	300,000	442,500	492,245
CC impact on ocean&coastal ecosystems	GLO	80,000	53,000	60,900	200,000	260,900	313,900
FUNCTION B - Observing System & Data Management		759,000	503,205	1,714,500	3,382,000	5,096,500	5,599,705
GOOS design, development, engagement & impact	GLO	290,000	192,025	95,000	500,000	595,000	787,025
GOOS Projects thr IOCAFRICA	AFR	50,000	33,715		400,000	400,000	433,715
GOOS Regional Alliances Indian Ocean and Pacific SIDS	INT	40,000	26,500			0	26,500
Observing system integration and delivery	GLO	80,000	52,975	261,420	300,000	561,420	614,395
Ocean forecast systems and applications	GLO	65,000	43,040		200,000	200,000	243,040
IODE & OBIS core systems	GLO	82,000	54,300	95,000	882,000	977,000	1,031,300
IODE & OBIS products & services	GLO	67,000	44,365	814,310	500,000	1,314,310	1,358,675
IODE & OBIS training & education	GLO	85,000	56,285	448,770	600,000	1,048,770	1,105,055
FUNCTION C - Early Warning & Services		385,000	261,045	578,977	3,000,000	3,578,977	3,840,022
Promote integrated and sustained WS	GLO	125,000	79,885	90,000	400,000	490,000	569,885
Tsunami-Ready - Educating communities at risk	GLO	60,000	38,345		1,000,000	1,000,000	1,038,345
Tsunami-Ready - Educating communities at risk (Caribbean)	LAC	20,000	22,655	50,000	500,000	550,000	572,655
Tsunami-Ready - Educating communities at risk (Pacific)	APA	40,000	26,480	50,000	300,000	350,000	376,480
Contribute to MS capacities for ass't	GLO	60,000	39,730		260,000	260,000	299,730
Contribute to MS capacities for ass't	INT	40,000	26,980	300,000	340,000	640,000	666,980
HAB & NIS Research and Moritoring	GLO	40,000	26,970	88,977	200,000	288,977	315,947
FUNCTION D - Assessment & Information for Policy		200,000	136,235	171,980	900,000	1,071,980	1,208,215
Follow-up to SDGs, WOA & State of the ocean reporting	GLO	85,000	49,265		150,000	150,000	199,265
GEBCO	GLO	20,000	20,000	121,980	250,000	371,980	391,980
Reducing nutrient enrichment	GLO	40,000	26,970		200,000	200,000	226,970
CC adaptation in coastal zones of Africa	AFR	30,000	20,000		200,000	200,000	220,000
CC adaptation in coastal zones	GLO	25,000	20,000	50,000	100,000	150,000	170,000
FUNCTION E - Sustainable Management & Governance		547,908	448,760	515,400	5,436,000	5,951,400	6,400,160
IOC Governing bodies	GLO	245,900	240,000	45,000	100,000	145,000	385,000
IOCARIBE	LAC	40,000	26,970		208,000	208,000	234,970
IOCAFRICA	AFR	40,000	26,970		208,000	208,000	234,970
WESTPAC	APA	40,000	26,970		212,000	212,000	238,970
IOCINDIO	APA	20,000	20,000		208,000	208,000	228,000
Partnerships&outreach (SDG followup)	GLO	81,800	47,400		200,000	200,000	247,400
UN Decade preparation/coordination	GLO	20,208	20,000	470,400	1,500,000	1,970,400	1,990,400
ICAM & MSP	GLO	60,000	40,450		2,800,000	2,800,000	2,840,450
FUNCTION F - Capacity Development		334,100	228,418	1,201,983	2,925,000	4,126,983	4,355,401
CD & TMT&GOSR & OL	GLO	74,100	49,963	924,765	2,000,000	2,924,765	2,974,728
CD IOCAFRICA	AFR	85,000	57,315		200,000	200,000	257,315
CD IOCARIBE	LAC	75,000	50,570		200,000	200,000	250,570
CD WESTPAC	APA	75,000	50,570	277,218	325,000	602,218	652,788
CD INCINDIO	APA	25,000	20,000		200,000	200,000	220,000
IOC PROGRAMS NET OPERATIONAL BUDGET		2,431,008	1,713,408	4,386,240	16,193,000	20,579,240	22,292,648
Common country programming 1%		25,323	17,848				17,848
Evaluations 3%		75,969	53,544				53,544
IOC Training & Development		20,000					0
IOC Operating costs		50,000	50,000				50,000
TOTAL OPERATIONAL BUDGET		2,602,300	1,834,800				1,834,800
TOTAL STAFF COSTS		8,271,700	9,401,200				9,401,200
TOTAL		10,874,000	11,236,000	4,386,240	16,193,000	20,579,240	31,815,240

IOC Function	40 C/5 (2020-2021) IBF				Draft 41 C/5 (2022-2023) IBF			
	RB	VC in hand	VC gap	Total	RB	VC in hand	VC gap	Total
A	205,000	50,000	994,000	1,249,000	135,745	203,400	550,000	889,145
B	567,000	220,000	1,722,200	2,509,200	503,205	1,714,500	3,382,000	5,599,705
C	450,000	550,000	2,130,000	3,130,000	261,045	578,977	3,000,000	3,840,022
D	267,000	0	2,016,000	2,283,000	136,235	171,980	900,000	1,208,215
E	547,908	1,630,000	4,123,000	6,300,908	448,760	515,400	5,436,000	6,400,160
F	394,100	150,000	2,175,000	2,719,100	228,418	1,201,983	2,925,000	4,355,401
Common costs	171,292			171,292	121,392			121,392
Staff (RB)	8,271,700			8,271,700	9,401,200			9,401,200
TOTAL	10,874,000	2,600,000	13,160,200	26,634,200	11,236,000	4,386,240	16,193,000	31,815,240



PROPOSED BUDGETARY ALLOCATIONS FOR THE IOC SPECIAL ACCOUNT 2022–2023

Function/Activity title	Budget code	\$
IOC Function A: Ocean Research		450 000
	191ORS2041	450 000
WCRP	191ORS2041.1	50 000
Ocean Carbon & Acidification	191ORS2041.2	250 000
Impact of climate change on ocean and coastal ecosystems	191ORS2041.3	150 000
IOC Function B: Observing System & Data Management		1 750 000
	191OSD2041	1 300 000
GOOS design, development, engagement & impact	191OSD2041.1	400 000
Observing system integration and delivery	191OSD2041.3	400 000
Ocean forecast services & applications	191OSD2041.4	200 000
IODE & OBIS	191OSD2041.5	300 000
OceanOPS	193OPS2041	450 000
IOC Function C: Early Warning & Services		1 900 000
	191EWS2041	1 050 000
ICG NEAMTWS	191EWS2041.1	100 000
ICG PTWS	191EWS2041.2	150 000
ICG CARIBE-EWS	191EWS2041.3	250 000
TOWs & inter-regional coordination	191EWS2041.4	100 000
IOTIC	191EWS2041.5	100 000
GLOSS - tsunami	191EWS2041.6	250 000
HAB & NIS research and monitoring	191EWS2041.8	100 000
ICG-IOTWMS Secretariat	193EWS2041	850 000
IOC Function D: Assessment & Information for Policy		450 000
	191AIP2041.1	450 000
Follow-up to SDGs, WOA & State of the ocean reporting	191AIP2041.1	150 000
GEBCO	191AIP2041.2	50 000
Science for reducing nutrient enrichment	191AIP2041.3	100 000
Climate change adaptation in coastal zones	191AIP2041.5	150 000
IOC Function E: Sustainable Management & Governance		2 850 000
	191RCG2041	1 350 000
IOC Governance (representation & intersessional coordination)	191RCG2041.1	150 000
IOCARIBE (office support & intersessional coordination)	191RCG2041.2	100 000
IOCAFRICA (office support & intersessional coordination)	191RCG2041.3	100 000
WESTPAC (office support & intersessional coordination)	191RCG2041.4	250 000
IOCINDIO (intersessional coordination)	191RCG2041.5	100 000
UN partnerships, global governance, policy and outreach	191RCG2041.6	400 000
ICAM & Marine Spatial Planning	191RCG2041.7	250 000
UN Decade of Ocean Science for Sustainable Development	193UND2041	1 500 000
IOC Function F: Capacity Development		1 350 000
	191ICD2041	1 350 000
CD coordination (incl. TMT)	191ICD2041.1	200 000
GOSR	191ICD2041.2	150 000
Ocean Literacy	191ICD2041.3	300 000
IOCAFRICA Capacity development workplans	191ICD2041.4	250 000
IOCARIBE Capacity development workplans	191ICD2041.5	100 000
WESTPAC Capacity development workplans	191ICD2041.6	250 000
IOCINDIO Capacity development workplans	191ICD2040.7	100 000
TOTAL		8 750 000